

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P589181

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589181
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-2STD-35-UNV-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

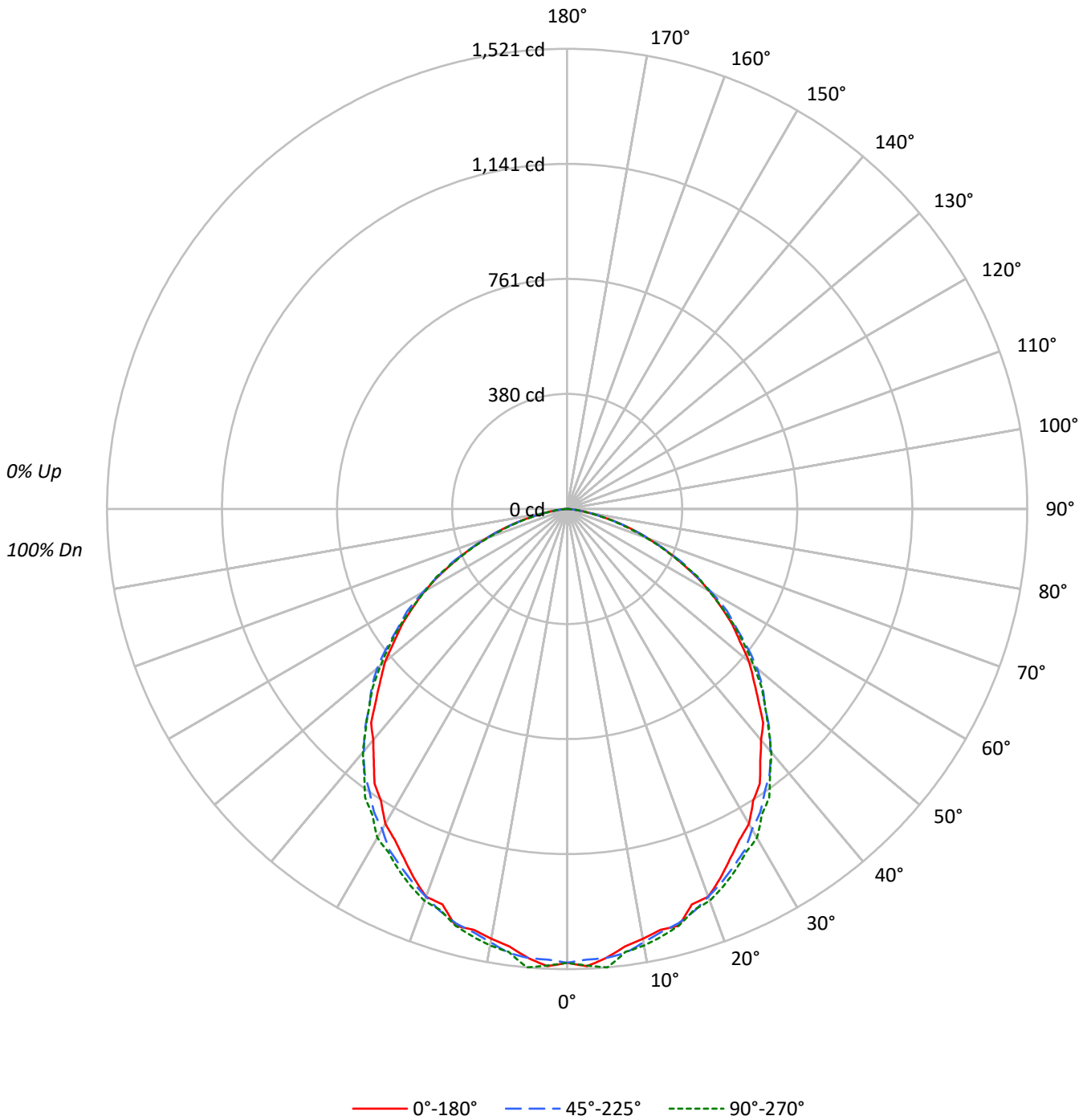
Lumens per Lamp: N/A
Luminaire Lumens: 3780.0 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P589181

CATALOG NUMBER: FMR-24-2-LD4-2STD-35-UNV-81-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589181

CATALOG NUMBER: FMR-24-2-LD4-2STD-35-UNV-81-84-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4036	4036	4036
5°	4023	4024	4109
10°	3941	3976	4003
15°	3972	3951	3973
20°	3905	3905	3947
25°	3785	3868	3910
30°	3733	3799	3900
35°	3645	3741	3824
40°	3503	3672	3688
45°	3397	3518	3523
50°	3286	3434	3368
55°	3131	3192	3169
60°	2928	2957	2904
65°	2611	2677	2592
70°	2240	2247	2185
75°	1774	1770	1701
80°	1189	1156	1110
85°	645	639	599



TEST NUMBER: P589181

CATALOG NUMBER: FMR-24-2-LD4-2STD-35-UNV-81-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.1	3.7
10°-20°	399.8	10.6
20°-30°	599.0	15.8
30°-40°	710.0	18.8
40°-50°	711.3	18.8
50°-60°	603.8	16.0
60°-70°	407.1	10.8
70°-80°	178.9	4.7
80°-90°	29.1	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1140.0	30.2
0°-40°	1849.9	48.9
0°-60°	3165.0	83.7
0°-90°	3780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3780.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1500	1500	1500	1500	1500	
5°	1489	1486	1490	1485	1521	140
15°	1426	1409	1418	1425	1426	397
25°	1275	1282	1303	1320	1317	589
35°	1110	1113	1139	1165	1164	689
45°	893	909	924	948	926	691
55°	667	663	680	676	675	594
65°	410	404	420	404	407	408
75°	171	167	170	158	164	183
85°	21	20	21	20	19	30
90°	0	0	0	0	0	



TEST NUMBER: P589181

CATALOG NUMBER: FMR-24-2-LD4-2STD-35-UNV-81-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1499.8	1499.8	1499.8	1499.8	1499.8
2.5°	1512.8	1501.4	1490.7	1503.1	1510.7
5°	1489.2	1485.7	1489.7	1485.3	1521.1
7.5°	1458.6	1471.9	1479.7	1474.8	1477.0
10°	1442.3	1437.6	1454.9	1466.9	1465.1
12.5°	1424.9	1431.8	1432.8	1445.8	1446.9
15°	1425.8	1409.4	1418.1	1425.4	1426.0
17.5°	1370.5	1388.3	1394.3	1411.1	1390.2
20°	1363.7	1350.7	1363.7	1380.9	1378.2
22.5°	1322.0	1307.5	1335.4	1350.7	1349.7
25°	1274.8	1281.8	1302.7	1319.7	1317.0
27.5°	1233.3	1241.5	1271.3	1294.7	1279.6
30°	1201.4	1197.3	1222.5	1243.4	1255.0
32.5°	1144.3	1159.0	1188.4	1209.1	1198.1
35°	1109.6	1112.9	1138.7	1165.0	1164.2
37.5°	1049.0	1064.3	1100.5	1107.9	1101.1
40°	997.3	1012.6	1045.3	1053.3	1050.0
42.5°	959.1	961.9	989.9	999.0	984.5
45°	892.7	909.4	924.5	948.3	925.8
47.5°	836.2	843.9	876.5	882.8	871.0
50°	784.9	787.6	820.3	812.4	804.6
52.5°	720.4	731.8	750.2	748.6	739.5
55°	667.3	662.9	680.3	675.6	675.4
57.5°	603.6	611.3	625.7	618.3	606.5
60°	544.0	544.2	549.4	541.1	539.5
62.5°	477.5	479.9	481.0	470.8	487.4
65°	410.0	404.5	420.4	404.3	407.0
67.5°	347.8	350.5	349.0	338.9	342.8
70°	284.7	288.1	285.6	274.2	277.7
72.5°	227.0	222.7	225.4	211.1	217.7
75°	170.6	167.1	170.2	158.2	163.6
77.5°	116.2	118.9	117.0	110.6	114.3
80°	76.7	74.6	74.6	70.9	71.6
82.5°	44.7	42.6	42.0	40.9	42.6
85°	20.9	20.3	20.7	20.1	19.4
87.5°	7.6	7.7	7.7	7.4	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)